

What is claimed is:

1. A solid-state imaging device comprising the following in the same semiconductor substrate:

5 a photodiode;
 a circuit element that is adjacent to the photodiode; and
 a device isolation that is adjacent to the photodiode in the same semiconductor substrate,
 wherein an antireflection film that is out of contact with
10 the device isolation is provided over the light-receiving surface of the photodiode.

2. The solid-state imaging device according to Claim 1, wherein an end of the antireflection film on the device isolation
15 side is spaced by a predetermined distance away from the device isolation.

3. The solid-state imaging device according to Claim 1, comprising a device-isolation protecting film that protects the
20 device isolation, located between the antireflection film and the device isolation.

4. The solid-state imaging device according to Claim 1, comprising a light-receiving surface protecting film that
25 protects the light-receiving surface of the photodiode, located between the antireflection film and the light-receiving surface of the photodiode.

5. The solid-state imaging device according to Claim 4,
30 wherein the light-receiving surface protecting film has an

opening that exposes the light-receiving surface of the photodiode, and the antireflection film covers the light-receiving surface of the photodiode, which is exposed from the opening.

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6. A solid-state imaging device comprising the following in the same semiconductor substrate:

a photodiode;
a circuit element that is adjacent to the photodiode; and
10 a device isolation that is adjacent to the photodiode, wherein an antireflection film that is out of contact with the device isolation and the circuit element is provided over the light-receiving surface of the photodiode.

15 7. The solid-state imaging device according to Claim 6, wherein one end of the antireflection film on the device isolation side is spaced by a predetermined distance away from the device isolation, and the other end of the antireflection film on the circuit element side is spaced by a predetermined distance away
20 from the circuit element.

8. The solid-state imaging device according to Claim 6, comprising:

a device-isolation protecting film that protects the device
25 isolation, located between the antireflection film and the device isolation; and

a circuit-element protecting film that protects the circuit element, located between the antireflection film and the circuit element.

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9. The solid-state imaging device according to Claim 6, comprising a plurality of insulating films that cover the light-receiving surface of the photodiode, located over the light-receiving surface of the photodiode;

5 wherein the plurality of insulating films have a penetrating hole that exposes the light-receiving surface of the photodiode, and the antireflection film covers the light-receiving surface of the photodiode, which is exposed from the penetrating hole.

10 10. The solid-state imaging device according to Claim 6, comprising a light-receiving surface protecting film that protects the light-receiving surface of the photodiode, located between the antireflection film and the light-receiving surface of the photodiode.

15 11. The solid-state imaging device according to Claim 10, wherein the light-receiving surface protecting film has an opening that exposes the light-receiving surface of the photodiode, and the antireflection film covers the
20 light-receiving surface of the photodiode, which is exposed from the opening.

12. A solid-state imaging device comprising the following in the same semiconductor substrate:

25 a photodiode;
a circuit element that is adjacent to the photodiode; and
a device isolation that is adjacent to the photodiode,
wherein an antireflection film formed of silicon oxynitride
film is provided over the light-receiving surface of the
30 photodiode.